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TITLE : HOLLOW YARN TYPE SEPARATION MEMBRANE

ABSTRACT : PURPOSE: To obtain a hollow yarn separation membrane showing high mechanical strength and high separation capacity even in the removal of metal oxide and having a good permeable capacity recovery rate by backwashing, by respectively setting the void ratios of pores with specific pore sizes provided to the outer and inner wall surfaces of a membrane to specific values and differentiating the sizes of the pores of the inner and outer surfaces of the membrane.

CONSTITUTION: A raw spinning solution prepared by dissolving cellulose acetate in a solvent such as N-methyl-pyrrolidone and a swelling agent such as polyethylene glycol is spun into an aqueous coagulation bath and, at the same time, an aqueous coagulation liquid is also introduced into the formed hollow yarn. At this time, the difference between the concns. of the solvent and swelling agent in the coagulation liquid introduced into the hollow yarn and that in the coagulation bath outside the hollow yarn is set to about 2~20wt% to obtain a hollow yarn type separation membrane wherein the pores with a pore area of  $2.6 \times 10^{-6} \text{mm}^2$  or less are averagely distributed to the outer wall surface thereof in a void ratio of 40% or less and pores with a pore area of  $3.6 \times 10^{-6} \text{mm}^2$  or less are formed on the inner wall surface thereof in a void ratio of 60% or less in a reticulated form and a thickness thereof is 100 $\mu\text{m}$  or less.

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